

DoD Combat Feeding Presents:

*An Overview of
US Military Rations:
Yesterday, Today, and Tomorrow*



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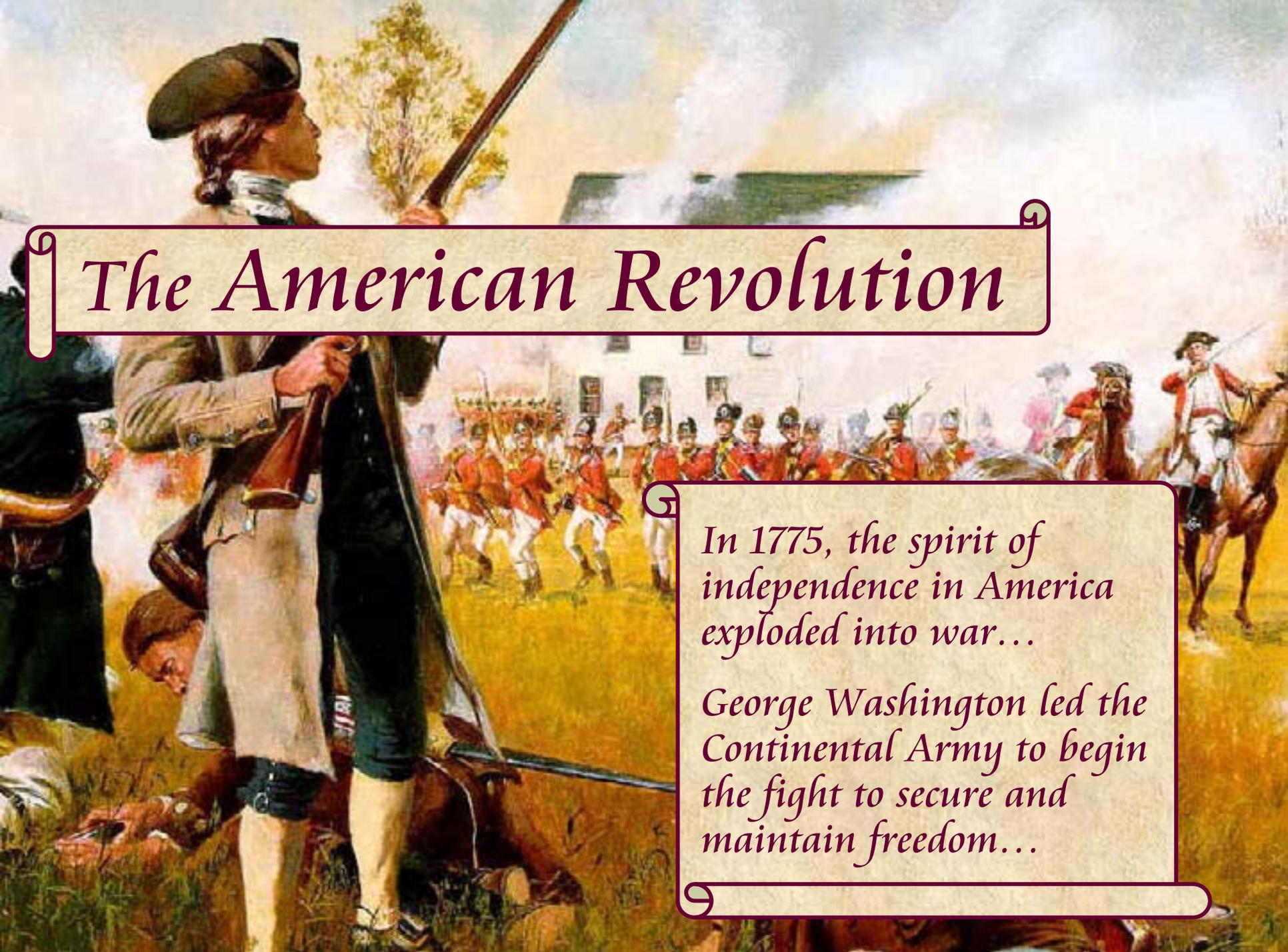
Feeding the military has been a global challenge through the ages. As long as there are wars, there will be armies, and as long as there are armies, there must be food.

The need to provide sustenance to our Warfighters hasn't changed since the time of the Revolutionary War. Without the efforts to bring fuel to our Warfighters, the military machine would come to a grinding halt.

The mission of the DoD Combat Feeding Program is to fuel ***the most valuable weapons platform in the Department of Defense - the individual Warfighter.***



Let's see how combat rations have evolved through the years...



The American Revolution

In 1775, the spirit of independence in America exploded into war...

George Washington led the Continental Army to begin the fight to secure and maintain freedom...

The American Revolution



During this time, the Soldier's nutritional health and diet were considered of little importance and not given much attention.

The Second Continental Congress passed legislation to provide its Army with the **first individual ration...**

1st Army Ration:

1-lb of beef, $\frac{3}{4}$ -lbs of pork or 1-lb of salted fish per week

3-pts of peas or beans per week

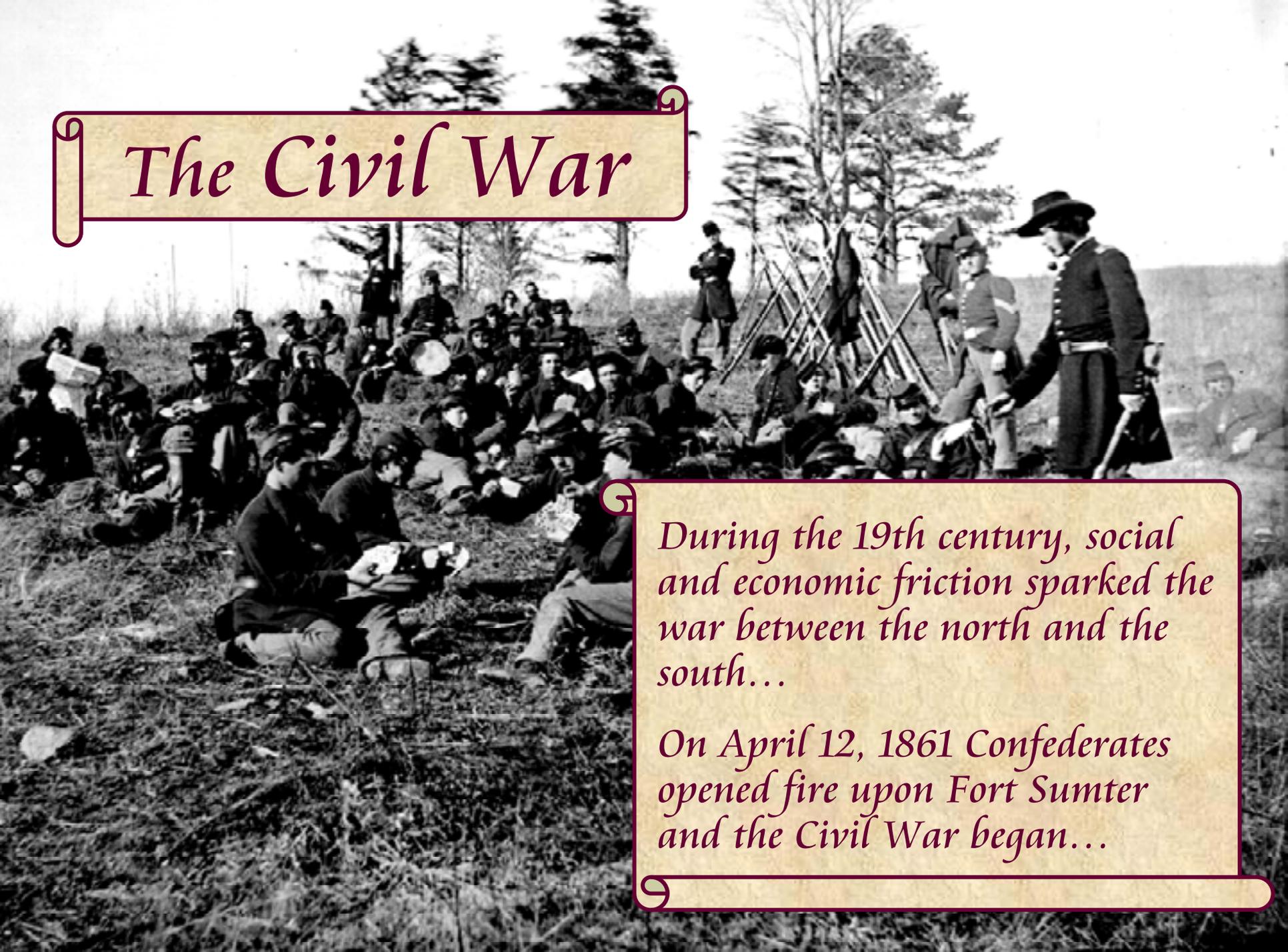
$\frac{1}{2}$ -pt of rice or 1-pt of Indian meal per week

1-pt of milk per day

1-lb of flour per day or hard bread, once a week

1-qt of spruce beer or cider per day





The Civil War

During the 19th century, social and economic friction sparked the war between the north and the south...

On April 12, 1861 Confederates opened fire upon Fort Sumter and the Civil War began...

The Civil War

Fresh meat was available as **Beef on the Hoof**; cattle were driven along with Soldiers and slaughtered as needed.

Decay and insect infiltration were rampant. One Civil War veteran recalled...

“Soldiers often ate after dark so they wouldn't have to see their rations. They hoped at least the food would make them tougher.”



The Civil War



Desiccated vegetables were cleaned, shredded, mixed, dried and pressed into hard clumps.

“We have boiled, baked, fried, stewed, pickled, sweetened, salted it; tried it in puddings, cakes and pies; but it sets all modes of cooking in defiance, so the boys break it up and smoke it in their pipes!”

(3rd Iowa Cavalry Reg)

They were affectionately referred to as **desecrated vegetables**.



A black and white historical photograph showing several World War I soldiers in a trench. The soldiers are wearing helmets and heavy coats, and are positioned in a line along the trench. The trench is dug into the ground, and there are some wooden planks or debris visible. The background shows a dense line of trees or brush.

World War One

In 1917 the US entered what was to be known as World War I... “the War to end all Wars” ...

The Army swelled to a fighting force of 2 million...

World War One



Trench warfare began and hot food and drinking water were delivered to troops in milk cans carried on a pole by two Soldiers. This was the first time hot meals were served on the front lines.

Nutritional Survey Parties were sent out to train cooks and inspect food. They determined strong and weak units simply by visiting the kitchens.

Trench Ration:

50 ½-lb cans of hard bread

10 1-lb cans corned beef

5 1-lb cans roast beef

4 1-lb cans salmon

4 ¼-lb cans sardines

coffee, salt and sugar



World War One



Demand for food technology to protect food from gas, spoilage, and dampness resulted in the **reserve ration**.

The **special reserve ration** contained smaller tins of the same foods, hermetically sealed in galvanized containers to be opened only in the event that no other food was available.

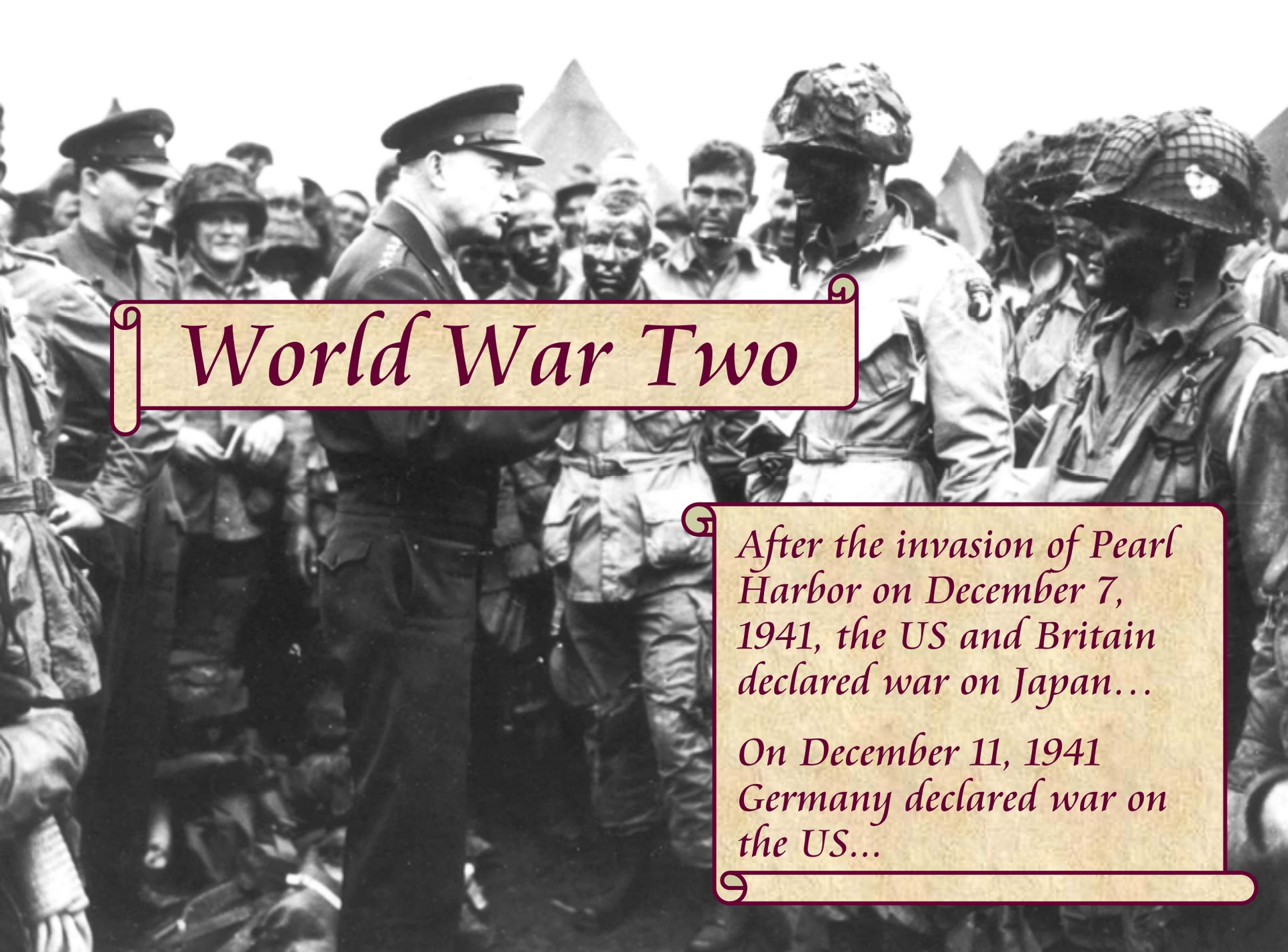
Reserve Ration:

Canned Meat

Canned Bread

Instant Coffee





World War Two

After the invasion of Pearl Harbor on December 7, 1941, the US and Britain declared war on Japan...

On December 11, 1941 Germany declared war on the US...

World War Two



The US military grew into a varied force with well established missions, widespread fronts, climates and conditions.

With advances in food technology, more than 23 different rations and supplements were developed.

During WWII, over 8 million personnel were fed with one billion individual rations.

Rations of WWII:

Life Raft Ration

Bail Out Ration

Parachute Ration

Airborne Life Boat

Ration

A-Ration

B-Ration

C-Ration

D-Bar

K-Ration

Assault Lunch

Air Crew Lunch

10 in 1

5 in 1

Mountain Ration

Jungle Ration

World War Two



In 1938, prototypes of the **Ration, Combat, Individual** were shown to General Staff, who directed development be continued until it was perfected - with a budget of \$300.

Troops ate **C-Rations** for up to 90 days. It was generally disliked by Soldiers who often did not consume all components due to menu monotony.

C-Ration:

M units (meat and vegetables)

B units (bread, sugar and coffee)

6 of 11 M-units contained beans!



World War Two



One of the most famous rations of WWII was the **K-Ration**. It was first requested for paratroopers to carry in their pockets. Its components were the most nutritionally balanced of any ration available at the time.

Of the 9 requirements for the K-Ration, one stated:

“it should not disrupt normal elimination from the bowel or derange the chemistry of the body!”



World War Two

The **D-Ration** or **D-Bar**, was the first survival ration of WWII. Its high density, high caloric chocolate bars could withstand temperatures up to 120°F. Over 450 million bars were procured and stockpiled overseas by 1944.

COL Paul Logan, originator of the D-Bar stated:

“an emergency ration should not be palatable for fear the men would consume the ration rather than carry it until an emergency arose.”





Korean War and the Cold War Era

In 1950, Communist North Korean forces invaded South Korea and the United States went to war once again...

Korean War



Research continued but there were few changes in rations. Soldiers were forced to eat the surplus of WWII C-rations. New items included canned fruits, cakes and bread.

“During my stay in Korea, we had the C-ration, an entire day’s ration...issued one at a time... you can’t put on a field jacket and stuff nine cans of food in it, plus ammunition, grenades, etc... 2 of every 3 were thrown away... I have no complaint about the food...you couldn’t carry enough of it around with you...”

(Major “D”, Infantry)



The Cold War Era



In 1958, the **Meal, Combat, Individual**, or MCI, replaced the C-Ration. It was the first ration adopted to meet the new concept of subsistence:

“Soldiers should be supplied with nutritionally balanced meals as opposed to a full day supply of food.”

Twelve menus provided an average of 1200 calories each.





the Vietnam Conflict

Initial fighting in 1957 led to over 15 years of fighting through 1973...

The Vietnam Conflict had a profound impact on all of our lives...

The Vietnam Era



Development of novel processing & packaging technologies enabled support to NASA with the first manned space flight in 1962.



The **Long Range Patrol (LRP)** was a new individual combat food packet that made use of these new technologies. Entrees like freeze-dried chicken stew and escalloped potatoes with pork were a far cry from the old menus with their ubiquitous servings of beans.



The Vietnam Conflict



Both the MCI and the LRP were used throughout the Vietnam Conflict. The use of LRPs brought forth a new thinking that *“metal containers must go”*.

The Office of the Surgeon General declared:

“Cigarettes must be removed from the rations”.



The Start of the MRE:

1956: requirement established

1961: DA approval

1970: first prototype

1972: requirement revalidated:

Shelf life: min 3 yrs 80°F

Air-droppable

Storage: -60°F to 120°F

Nutritionally complete

1975: type classified

1980: first procurement

A group of soldiers in camouflage uniforms and helmets marching in a desert environment. The soldiers are carrying rifles and backpacks, and the scene is set in a bright, hazy outdoor setting.

The Late 20th Century

On 2 August 1990, Iraqi troops crossed the Kuwaiti border and hostilities commenced...

In January 1991, US and Coalition forces launched a massive air campaign codenamed "Operation Desert Storm"...

The '70s and Early '80s



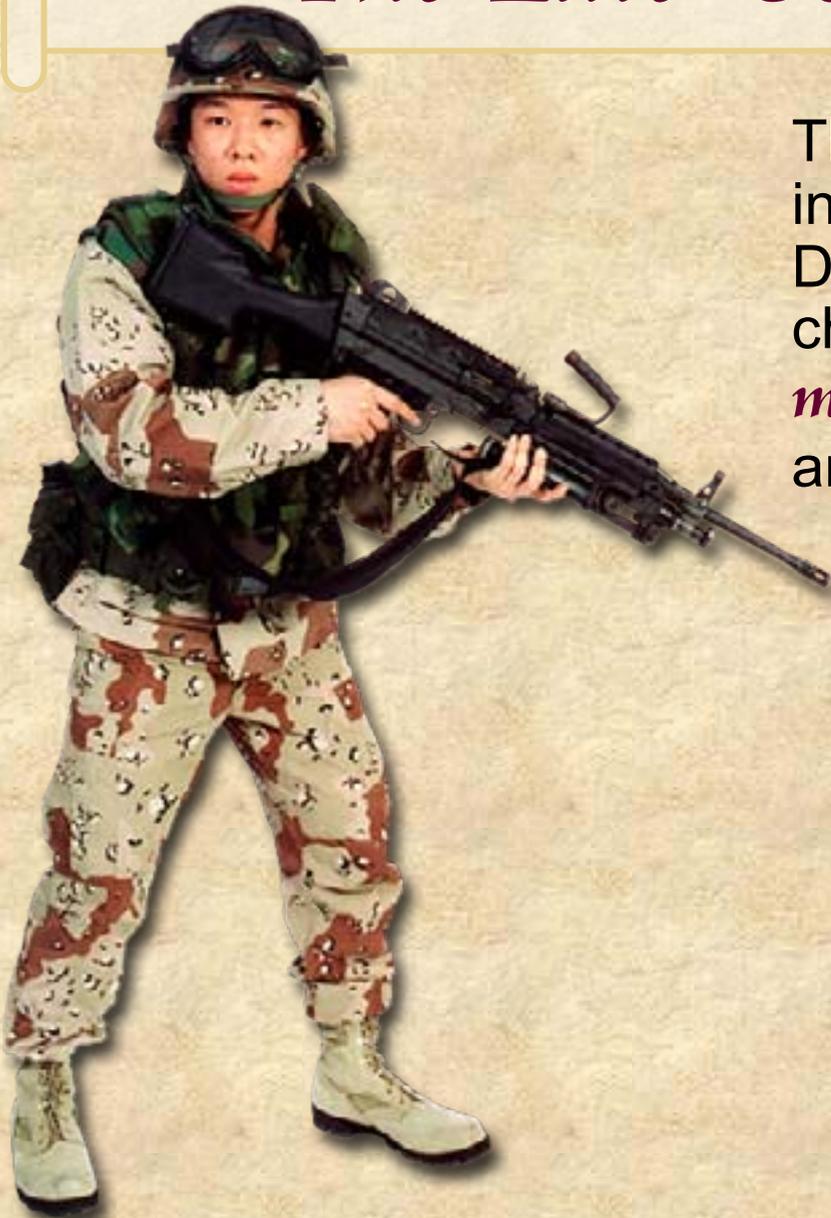
The **Meal, Ready to Eat (MRE)** went into full production in 1980 and was fielded in 1983.



Inclusion of Tabasco sauce in the MRE proved to be a fascinating challenge — it ate through every flexible package tested. Glass bottles were used, but the sauce blew the bottoms out of the bottles. The problem was solved and Tabasco still remains one of the most popular items in the MRE today.



The Late '80s and Early '90s



The **Desert Bar** was developed by industry in response to Operation Desert Shield. It was coined as the chocolate bar that *“melts in your mouth, not in the sand,”* and was an outstanding success.

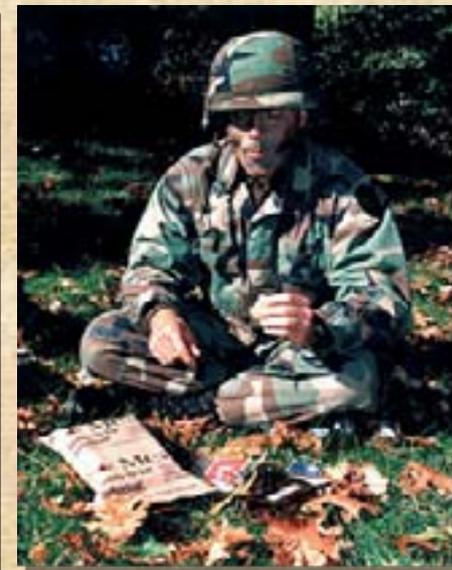


The Late '80s and Early '90s

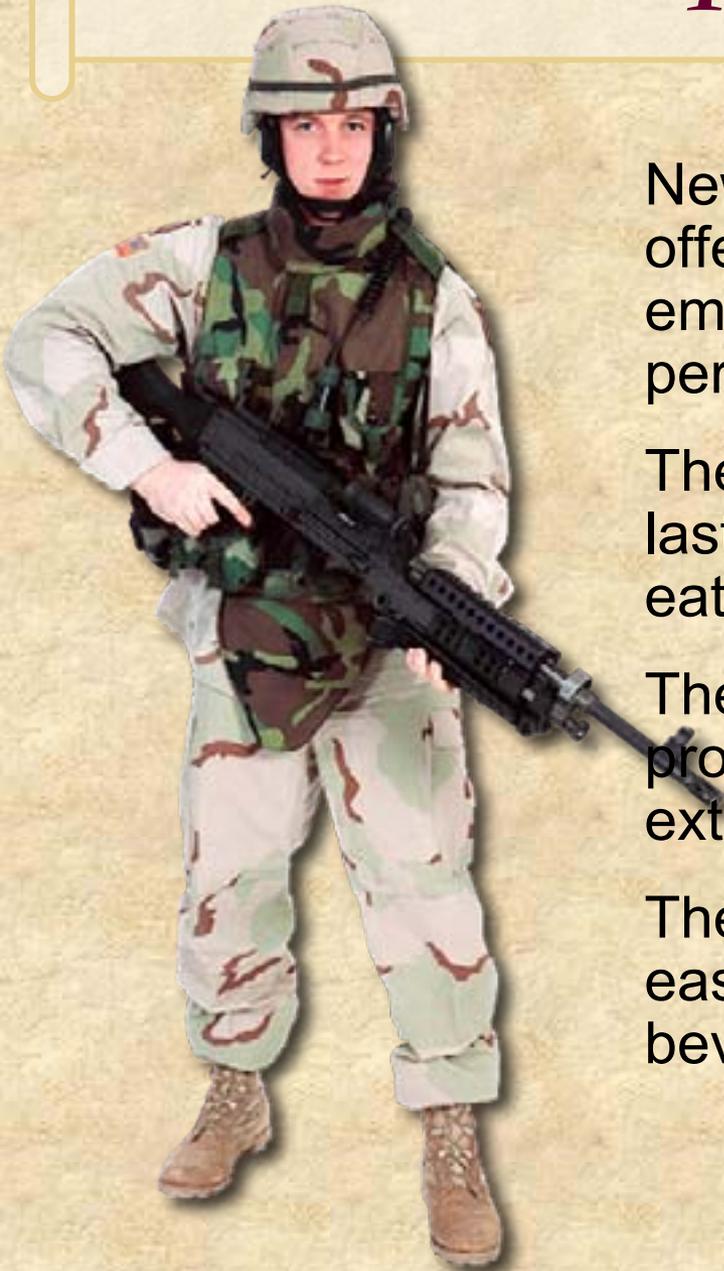


Feedback from ODS coined the MRE as *“Meals Rejected by Everyone”*. As a result, the MRE continuous improvement program began in 1993.

Menus subsequently increased from 12 to 24, with more variety and enhancements such as the flameless ration heater, vegetarian meals, and commercial items.



The Late '90s



New ration components offer new capability and emphasize mobility and performance enhancement.

The **Pocket Sandwich** lasts 2 years and can be eaten out-of-hand.

The ***First Strike!***[™] Bar provides extra energy to extend physical endurance.

The **Drink Pouch** allows easy rehydration of beverages.



Today's Family of Rations



Warfighter feedback continues to drive improvements in combat rations.

Warfighter Recommended,

Warfighter Tested,

Warfighter Approved™

Individual:

MRE

Hot Beverage Bag

Group:

Unitized Group Ration

A, B, Heat & Serve

Institutional Pouch

Polymeric Tray

Assault/Special

Purpose:

Long Range Patrol

Meal Cold Weather

Tube Foods

Survival Rations

Into the 21st Century

The DoD Combat Feeding Program continues to invest in high risk, high payoff science and technology to provide revolutionary combat feeding capabilities for our Warfighters.

